IPG No: P16600

CLAIMS

What is claimed is:

- 1 1. A platform adaptation method comprising: 2 executing a workload on a platform; 3 monitoring the platform for one or more performance events associated 4 with the platform executing the workload; 5. determining which if any, of one or more pre-established sets of 6 configuration parameter values should be selected for application to configure 7 the platform, based at least in part on the one or more performance events 8 observed during said monitoring; and 9 if one of the one or more pre-established sets of configuration parameter 10 values is determined to be selected and applied to configure the platform, 11 selecting and applying the pre-established set of configuration parameter values 12 to configure the platform. 1 2. The method of claim 1, wherein said monitoring comprises monitoring at 2 least a selected one of a processor performance counter, an OS performance 3 counter, and a chipset performance counter, while the platform executes the
 - 1 3. The method of claim 1, wherein

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workload.

the one or more pre-established sets of configuration parameter values comprises one or more sets of configuration parameter values pre-selected for the platform to execute one or more corresponding reference workloads; and

Attorney Docket Ref: 110349-133006 Express Mail Label No. EL973637359US

IPG No: P16600

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said determining comprises determining whether the workload resembles one of the one or more corresponding reference workloads, based at least in part on the one or more performance events observed during said monitoring.

- 4. The method of claim 3, wherein said determining of whether the workload resembles one of the one or more corresponding reference workloads comprises determining one or more correlation metrics between the workload and the one or more reference workloads, based on the one or more performance events observed during said monitoring, and during one or more prior executions of the one or more reference workloads; and determining whether at least one of the determined one or more
- The method of claim 3, wherein said determining further comprises
 identifying for selection, the set of one or more configuration parameter values
 pre-selected for the platform to execute a reference workload, with which the

correlation metrics exceeds a correlation threshold.

workload is determined to resemble.

- 1 6. The method of claim 3, wherein the one or more reference workloads
- 2 comprise at least a selected one of a route look-up workload, a OSPF workload,
- 3 a JPEG codec workload, a 3DES encryption/decryption workload, an AES
- 4 encryption/decryption workload, an IP packet forwarding workload, and a H.323
- 5 speech codec workload.
- 1 7. The method of claim 3, wherein the method further comprises pre-
- 2 selecting said one or more sets of configuration parameter values for the platform
- 3 to execute the one or more corresponding reference workloads.

Attorney Docket Ref: 110349-133006

IPG No: P16600

1 8. The method of claim 1, wherein said determining comprises 2 generating an index based at least in part on the one or more performance 3 events observed during said monitoring; and 4 selecting one of the one or more pre-established sets of configuration 5 parameter values, based at least in part on the generated index. 1 9. The method of claim 8, wherein said generating comprises evaluating an 2 index function in view of the one or more performance events observed during 3 said monitoring. 1 10. The method of claim 1, wherein the one or more configuration parameter 2 values comprise one or more of processor configuration parameter values, OS 3 configuration parameter values, and chipset configuration parameter values. 1 11. In a system, a method of operation comprising: 2 determining whether a workload executed or being executed by a platform 3 resembles a reference workload, based at least in part on one or more 4 performance events observed from monitoring the platform's execution of the 5 workload; and 6 if the workload is determined to resemble the reference workload, 7 performing a selected one of 8 selecting a set of one or more configuration parameter values pre-9 selected for the platform to execute the resembled reference 10 workload, and 11 providing information about the determined resembled reference 12 workload to facilitate the selection of the set of one or more

Attorney Docket Ref: 110349-133006 IPG No: P16600

13	configuration parameter values pre-selected for the platform to		
14		execute the determined resembled reference workload.	
1	12.	The method of claim 11, wherein the one or more reference workloads	
2	comp	orise at least a selected one of a route look-up workload, a OSPF workload,	
3	a JP	EG codec workload, a 3DES encryption/decryption workload, an AES	
4	encryption/decryption workload, an IP packet forwarding workload, a H.323		
5	speech codec workload.		
1	13.	The method of claim 11, wherein said determining comprises	
2	•	determining a correlation metric between the workload and the reference	
3	workload, based on the one or more performance events observed during said		
4	monitoring, and observed during at least one prior execution of the reference		
5	workl	oad; and	
6		determining whether the correlation metric exceeds a correlation	
7	thres	hold.	
1	14.	The method of claim 11, wherein the method further comprises performing	
2	a selected one of		
3		receiving the one or more performance events observed during said	
4		monitoring; and	
5		said monitoring.	
1	15.	The method of claim 11, wherein	
2		the system comprises the platform; and	
3		the method further comprises executing the workload, and performing said	
4		monitoring.	

Attorney Docket Ref: 110349-133006

IPG No: P16600

1 16. The method of claim 11, wherein 2 said performing comprises selecting a set of one or more configuration 3 parameter values pre-selected for the platform to execute the determined 4 resembled reference workload; and 5 the method further comprises performing a selected one of 6 applying the selected set of one or more configuration parameter 7 values to configure the platform, and 8 providing information about the selected set of one or more 9. configuration parameter values to facilitate application of the 10 selected set of one or more configuration parameter values to 11 configure the platform. 1 17. In a system, a method of operation comprising: 2 generating an index based at least in part on one or more performance 3 events observed in associated with a platform's execution of a workload; and 4 selecting one of one or more pre-established sets of configuration 5 parameter values, based at least in part on the generated index, for application to 6 configure the platform. 1 18. The method of claim 17, wherein said generating comprises evaluating an 2 index function in view of the one or more performance events observed. 1 19. The method of claim 17, wherein the method further comprises performing 2 a selected one of 3 receiving the one or more performance events observed; and 4 monitoring said execution of the workload by the platform.

Attorney Docket Ref: 110349-133006

IPG No: P16600

1 20. The method of claim 17, wherein the method further comprises performing 2 a selected one of 3 providing information about the selected set of one or more configuration 4 parameter values to facilitate application of the selected set of one or 5 more configuration parameter values to configure the platform; and 6 applying the selected set of one or more configuration parameter values to 7 configure the platform, the platform being a part of the system. 21. 1 An apparatus comprising 2 storage medium having stored therein programming instructions designed 3 to enable the apparatus to determine whether a workload executed or being executed by a 5 platform sufficiently resembles a reference workload, based at 6 least in part on one or more performance events observed from 7 monitoring the platform's execution of the workload, and 8 if the workload is determined to sufficiently resemble the reference 9 workload, perform at least a selected one of 10 selecting a set of one or more configuration parameter values 11 pre-selected for the platform to execute the determined 12 resembled reference workload, and 13 providing information about the determined resembled reference 14 workload to facilitate the selection of the set of one or more 15 configuration parameter values pre-selected for the platform 16 to execute the determined resembled reference workload: 17 and

IPG No: P16600

18	at least one processor coupled to the storage medium to execute the	
19	programming instructions.	
1	22. The apparatus of claim 21, wherein said programming instructions are	
`2	designed to enable the apparatus to perform said determine by	
3	determining a plurality of correlation metrics between the workload and the	
4	reference workload, based on the one or more performance events observed	
5	during said monitoring, observed during at least one prior execution of the	
6	reference workload; and	
7	determining whether at least one of determined correlation metrics	
8	exceeds a correlation threshold.	
1	23. The apparatus of claim 21, wherein the programming instructions are	
2	further designed to perform a selected one of	
3	receiving the one or more performance events observed during said	
4	monitoring;	
5	monitoring the execution of the workload to observe the one or more	
6	performance events;	
7	providing information about the selected set of one or more configuration	
8	parameter values to facilitate application of the selected set of one or more	

1 24. An apparatus comprising:

configure the platform.

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2 storage medium having stored therein programming instructions designed

configuration parameter values to configure the platform; and

3 to enable the apparatus to

applying the selected set of one or more configuration parameter values to

Attorney Docket Ref: 110349-133006 IPG No: P16600

4	generate an index based at least in part on one or more performance		
5	events observed in associated with a platform's execution of a		
6	workload; and		
7	select one of one or more pre-established sets of configuration		
8	parameter values, based at least in part on the generated index, for		
9	application to configure the platform; and		
10	at least a processor coupled to storage medium to execute the		
11	programming instructions.		
1	25. The apparatus of claim 24, wherein said generating comprises evaluating		
2	an index function in view of the one or more performance events observed.		
1	26. The apparatus of claim 25, wherein the programming instructions are		
2	further designed to enable the apparatus to perform a selected one of		
3	receiving the one or more performance events observed;		
4	monitoring said execution of the workload by the platform;		
5	providing information about the selected set of one or more configuration		
6	parameter values to facilitate application of the selected set of one or		
7	more configuration parameter values to configure the platform; and		
8	applying the selected set of one or more configuration parameter values to		
9	configure the platform, the platform being a part of the system.		
1	27. A system comprising:		
2	a platform to execute a workload;		
3	a monitor, either coupled to or an integral part of the platform, to observe		
4	one or more performance events associated with the platform's execution of the		
5	workload; and		
-	wormoud, und		

Express Mail Label No. EL973637359US

Attorney Docket Ref: 110349-133006

IPG No: P16600

an analyzer coupled to the monitor to receive the one or more

performance events observed, and in response, at least contribute to selecting if

possible, a set of one or more configuration parameters values for application to

configure the platform, based at least in part on the one or more performance

events observed.

- 1 28. The system of claim 27, wherein the analyzer is adapted to at least
- 2 contribute by determining whether the workload resembles one of one or more
- 3 reference workloads, based at least in part on the received one or more
- 4 performance events observed, the resembled reference workload being
- 5 employed to facilitate said selection of one of the one or more configuration
- 6 parameter values.
- 1 29. The system of claim 27, wherein the analyzer is adapted to at least
- 2 contribute by generating an index to facilitate said selection of one of the one or
- 3 more configuration parameter values, based at least in part on the received one
- 4 or more performance events observed.
- 1 30. The system of claim 27, wherein
- 2 the platform comprises a first networking interface; and
- 3 the system further comprises a computing device hosting the analyzer, the
- 4 computing device including a second networking interface to couple the
- 5 computing device with the platform via a network connection.
- 1 31. An article of manufacture comprising:
- 2 a machine readable medium; and

Express Mail Label No. <u>EL973637359US</u>

Attorney Docket Ref: 110349-133006

IPG No: P16600

8

a plurality of programming instructions on the machine readable medium,

designed to enable an apparatus to observe one or more performance events

associated with a platform's execution of a workload or receive the one or more

performance events observed, and to at least contribute in selection of one or

more configuration parameters values for application to configure the platform,

- 1 32. The article of claim 31, wherein the programming instructions are
- 2 designed to enable the apparatus to contribute by determining whether the

based at least in part on the one or more performance events observed.

- 3 workload resembles one of one or more reference workloads, based at least in
- 4 part on the received one or more performance events observed, the resembled
- 5 reference workload being employed to facilitate said selection of one of the one
- 6 or more configuration parameter values
- 1 33. The article of claim 31, wherein the programming instructions are
- 2 designed to enable the apparatus to contribute by generating an index to
- 3 facilitate said selection of one of the one or more configuration parameter values,
- 4 based at least in part on the received observed one or more performance events.